

FORM PTO-1390 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE <b>TRANSMITTAL LETTER TO THE UNITED STATES          DESIGNATED/ELECTED OFFICE (DO/EO/US)          CONCERNING A FILING UNDER 35 U.S.C. 371</b>		ATTORNEY'S DOCKET NUMBER: USB99 DAF FIX/AM  U.S. APPLICATION NO. (If known, see 37 CFR 1.51) <div style="font-size: 1.5em; font-weight: bold;">09/913862</div>
INTERNATIONAL APPLICATION NO.: PCT/FR00/00380	INTERNATIONAL FILING DATE: 16 FEBRUARY 2000 (16.02.00)	PRIORITY DATE CLAIMED: 19 FEBRUARY 1999 (19.02.99)
TITLE OF INVENTION: SNOWBOARD SHOE FIXING SYSTEM		
APPLICANT(S) FOR DO/EO/US: Frédéric DAT		
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:		
1. <input checked="" type="checkbox"/> 2. <input type="checkbox"/> 3. <input checked="" type="checkbox"/> 4. <input checked="" type="checkbox"/> 5. <input checked="" type="checkbox"/> 6. <input checked="" type="checkbox"/> 7. <input checked="" type="checkbox"/> 8. <input checked="" type="checkbox"/> 9. <input checked="" type="checkbox"/> 10. <input checked="" type="checkbox"/> 11. <input type="checkbox"/> 12. <input type="checkbox"/> 13. <input checked="" type="checkbox"/> 14. <input type="checkbox"/> 15. <input type="checkbox"/> 16. <input checked="" type="checkbox"/>	This is a <b>FIRST</b> submission of items concerning a filing under 35 U.S.C. 371.  This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a filing under 35 U.S.C. 371.  This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1).  A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.  A copy of the International Application as filed (35 U.S.C. 371(c)(2)) a. <input checked="" type="checkbox"/> is transmitted herewith (required only if not transmitted by the International Bureau -- <u>cover sheet only in French language</u> ). b. <input checked="" type="checkbox"/> has been transmitted by the International Bureau. (see attached copy of PCT/IB/308) c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).  A translation of the International Application into English (35 U.S.C. 371(c)(2)).  Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)). a. <input type="checkbox"/> are transmitted herewith (required only if not transmitted by the International Bureau). b. <input type="checkbox"/> have been transmitted by the International Bureau. c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired. d. <input type="checkbox"/> have not been made and will not be made.  A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).  An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).  A translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).  Item 11. to 16. below concern document(s) or information included:  An Information Disclosure Statement under 37 CFR 1.97 and 1.98.  An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.  A <b>FIRST</b> preliminary amendment. A <b>SECOND</b> or <b>SUBSEQUENT</b> preliminary amendment.  A substitute specification.  A change of power of attorney and/or address letter.  Other items or information: INTERNATIONAL PRELIMINARY EXAMINATION REPORT (PCT/ISA/409), INTERNATIONAL SEARCH REPORT (PCT/ISA/210), PRELIMINARY AMENDMENT FOR AMENDED DRAWINGS, APPLICATION DATA SHEET, ABSTRACT	

U.S. APPLICATION NO. 097/913862

INTERNATIONAL APPLICATION NO.  
PCT/FR00/00380ATTORNEY'S DOCKET NO.  
USB99 DAF FIX/AM

## CALCULATIONS PTO USE ONLY

17. ☒ The following fees are submitted:**BASIC NATIONAL FEE (37 CFR 1.492(a)(1)-(5)):**

Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO ..... \$ 1,000.00

International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO ..... \$ 860.00

International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO ..... \$ 710.00

International preliminary examination fee (37 CFR 1.482) paid to USPTO but all claims did not satisfy provisions of PCT Article 33(1)-(4) ..... \$ 690.00

International preliminary examination fee (37 CFR 1.482) paid to USPTO and all claims satisfied provisions of PCT Article 33(1)-(4) ..... \$ 100.00

**ENTER APPROPRIATE BASIC FEE AMOUNT =**

\$ 860.00

Surcharge of \$130.00 for furnishing the oath or declaration later than months from the earliest claimed priority date (37 CFR 1.492(e)).

\$

**CLAIMS**

NUMBER FILED

NUMBER EXTRA

RATE

\$

Total claims 8 - 20 = 0 X \$18.00 \$

Independent claims 1 - 3 = 0 X \$80.00 \$

MULTIPLE DEPENDENT CLAIMS(S) (if applicable) + \$270.00 \$

**TOTAL OF ABOVE CALCULATIONS =**

\$ 860.00

Reduction of 1/2 for filing by small entity, if applicable. Applicant claims Small Entity Status under 37 CFR 1.27. +

\$ 430.00

**SUBTOTAL =**

\$ 430.00

Processing fee of \$130 for furnishing the English translation later than months from the earliest claimed priority date (37 CFR 1.49(f)).

\$

**TOTAL NATIONAL FEE =**

\$ 430.00

Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property +

\$

**TOTAL FEES ENCLOSED =**

\$ 430.00

Amount to be  
refunded:

charged:

a. ☒ A check in the amount of \$ **430.00** to cover the above fees is enclosed.b. ☐ Please charge my Deposit Account No. **25-0120** in the amount of \$ to cover the above fees. A duplicate copy of this sheet is enclosed.c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required by 37 CFR 1.16 and 1.17, or credit any overpayment to Deposit Account No. **25-0120**. A duplicate copy of this sheet is enclosed.

SEND ALL CORRESPONDENCE TO.

YOUNG & THOMPSON  
745 South 23rd Street  
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August 20, 2001

By

*Benoit Castel*Benoit Castel  
Attorney for Applicant  
Registration No. 35,041

Customer Number: 000466

PATENTS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Frédéric DAT

Serial No. (unknown)

Filed herewith

SNOWBOARD SHOE FIXING SYSTEM

**PRELIMINARY AMENDMENT**

Commissioner for Patents

Washington, D.C. 20231

Sir:

Prior to the first Official Action and calculation of the filing fee, please substitute Specification pages 1-3 as originally filed, with new Specification pages 1-3 as filed in the Article 34 amendment of February 14, 2001. New specification pages 1-3 are marked "AMENDED SHEET" and are attached hereto.

Prior to the first Official Action and calculation of the filing fee, please substitute Claims 1-8 as originally filed, which appear on pages 4-5, with new Claims 1-8 as filed in the Article 34 amendment of February 14, 2001. The pages containing Claims 1-8 are marked "AMENDED SHEET" and are attached hereto. Following the insertion of Claims 1-8, please amend these claims as follows:

IN THE CLAIMS:

--3.(New) Device according to claim 1, characterized in that a mobile blade (22), linked by one of its ends to the heel release (2), forms a loop behind said heel release (2), the other end of this blade (22) is free and passes through an opening made in the heel release (2) through the latter and comes into contact with the rear of the shoe (4).--

--4.(New) Device according to claim 1 characterized in that the heel release (2) is divided into an upper part (24) having at its base two substantially vertical oblong holes (27), through which two pins (3) pass, which connect it to a lower part (25); the base of the upper part (24) also comprises at least one element (26) located under an element of matching shape (29) to the lower part (25) at a distance substantially equal to that covered by the pins (3) in the oblong holes (27), which elements press and fit together when the upper part (24) of the heel release (2) is lifted.--

--6.(New) Device according to claim 1 characterized in that the upper part (25) of the heel release (2) holding the heel-piece (41) has on its rear an element, a handle (251) which is easy to hold.--

--7.(New) Device according to claim 1 characterized in that the front part of a shoe (4) intended for this fixing system has on the sides of its sole two flat parts (42) sliding into two housings (7) of matching shape located on the front of the wings (12) of the base (1).--

Frédéric DAT

--8.(New) Device according to claim 7 characterized in that the housings (7) pivot about pins (71) connecting them to the wings (12) of the base (1).--

R E M A R K S

The above changes in the specification and claims merely place this national phase application in the same condition as it was during Chapter II of the international phase, with the multiple dependencies being removed. Following entry of this amendment by substitution of the pages, only claims 1-8 remain pending in this application. Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE".

Respectfully submitted,

YOUNG & THOMPSON

By



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745 South 23rd Street  
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703/521-2297

August 20, 2001

**"VERSION WITH MARKINGS TO SHOW CHANGES MADE"**

Claims 3-4 and 6-8 have been amended as follows:

3.(New) Device according to ~~claims 1 and 2~~, claim 1, characterized in that a mobile blade (22), linked by one of its ends to the heel release (2), forms a loop behind said heel release (2), the other end of this blade (22) is free and passes through an opening made in the heel release (2) through the latter and comes into contact with the rear of the shoe (4).

4.(New) Device according to ~~claims 1 and 2~~ claim 1 characterized in that the heel release (2) is divided into an upper part (24) having at its base two substantially vertical oblong holes (27), through which two pins (3) pass, which connect it to a lower part (25); the base of the upper part (24) also comprises at least one element (26) located under an element of matching shape (29) to the lower part (25) at a distance substantially equal to that covered by the pins (3) in the oblong holes (27), which elements press and fit together when the upper part (24) of the heel release (2) is lifted.

6.(New) Device according to ~~claims 1 and 2~~ claim 1 characterized in that the upper part (25) of the heel release (2) holding the heel-piece (41) has on its rear an element, a handle (251) which is easy to hold.

7.(New) Device according to ~~claims 1 and 2~~ claim 1 characterized in that the front part of a shoe (4) intended for this fixing system has on the sides of its sole two flat parts (42) sliding into two housings (7) of matching shape located on the front of the wings (12) of the base (1).

8. (New) Device according to claims ~~1 and~~ 7 characterized in that the housings (7) pivot about pins (71) connecting them to the wings (12) of the base (1).

PATENTS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Frédéric DAT

Serial No. (unknown)

Filed herewith

SNOWBOARD SHOE FIXING SYSTEM

PRELIMINARY AMENDMENT FOR AMENDED DRAWINGS

Commissioner for Patents

Washington, D.C. 20231

Sir:

Prior to the first Official Action and calculation of the filing fee, please substitute Drawing pages 1-4 as originally filed, with new Drawing pages 1-4 as filed in the Article 34 amendment of February 14, 2001. New drawing pages 1-4 are marked "AMENDED SHEET" and are attached hereto.

Respectfully submitted,

YOUNG & THOMPSON

By \_\_\_\_\_  
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703/521-2297

August 20, 2001





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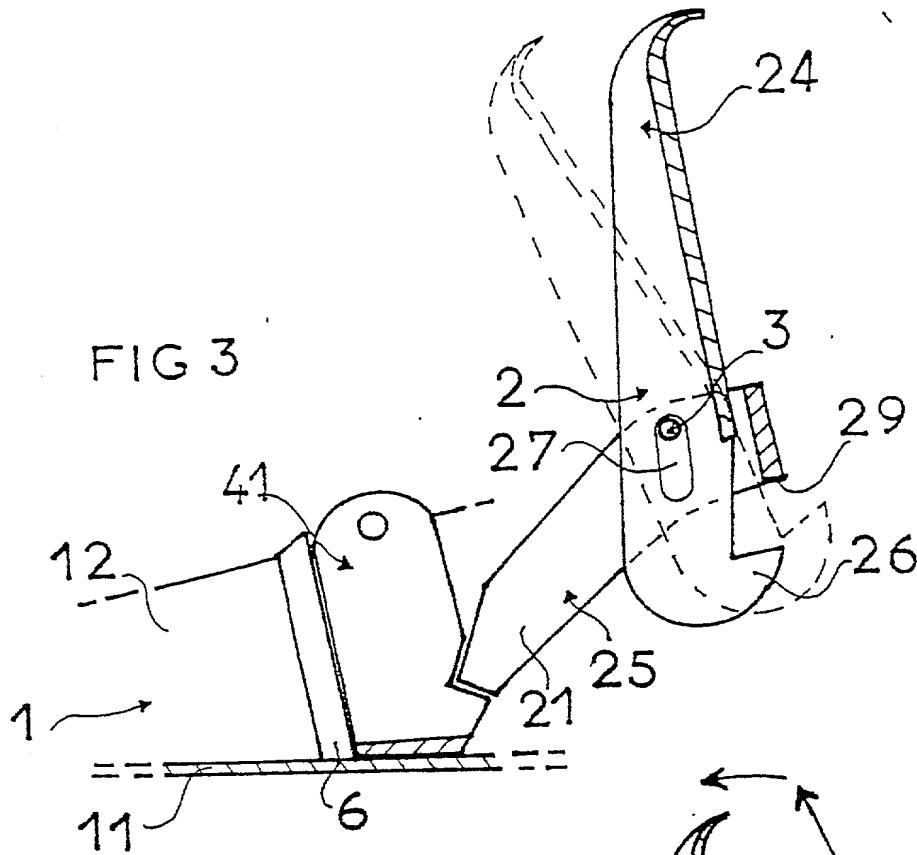
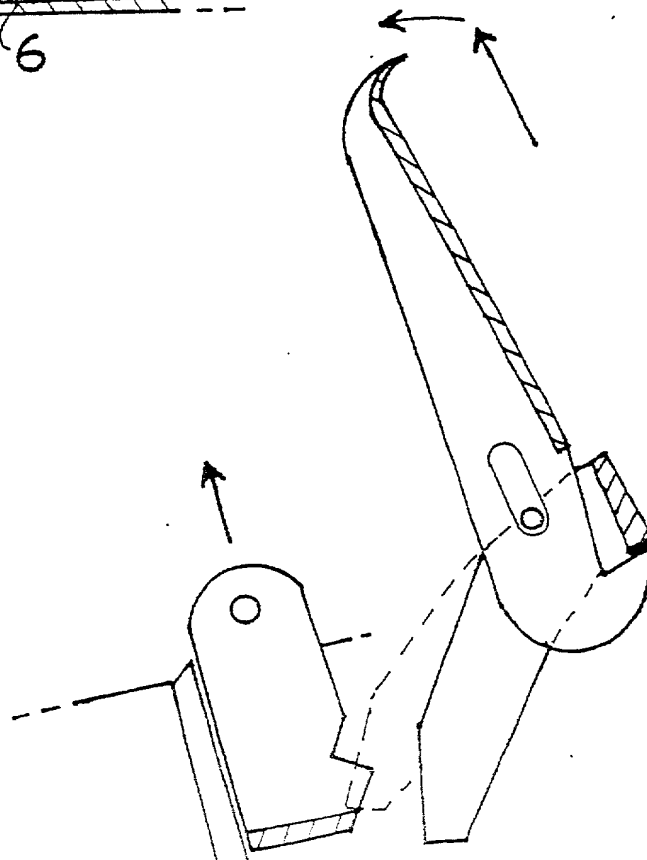


FIG 4



3/4

FIG 5

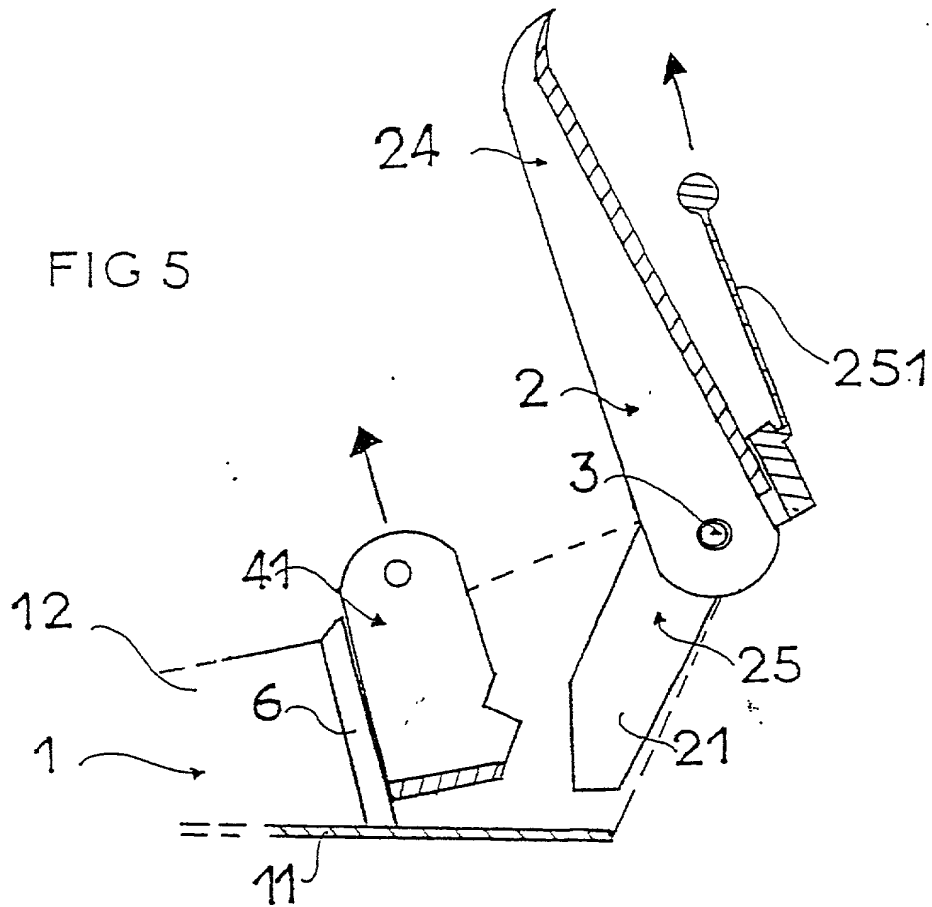
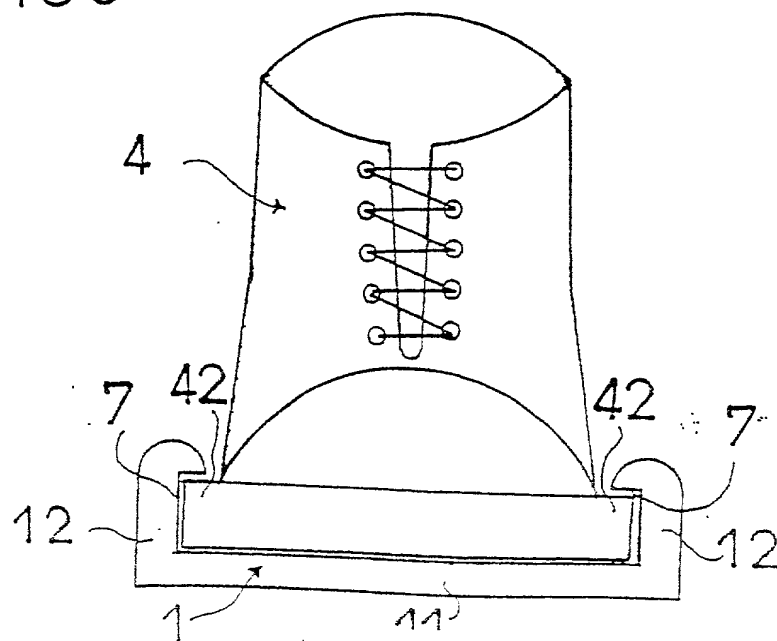
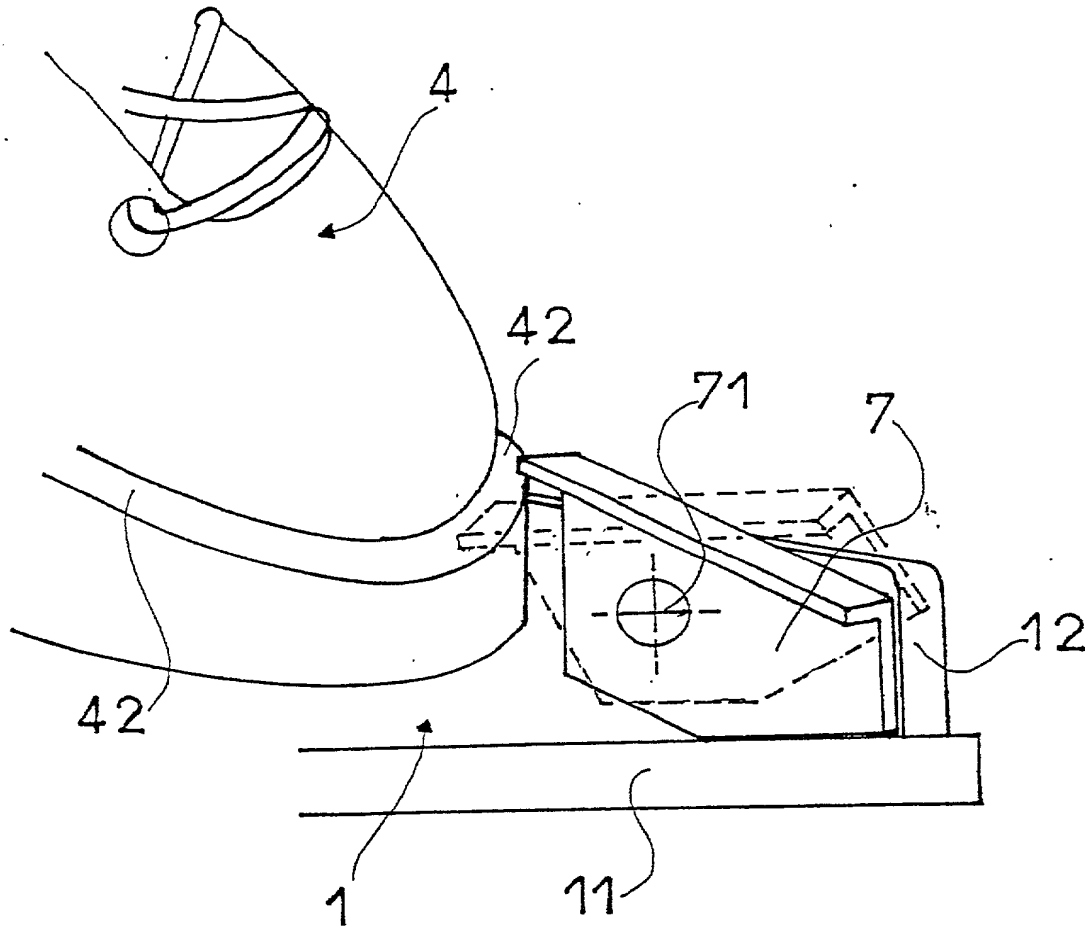


FIG 6



AMENDED SHEET

FIG 7



The invention relates to a system for fixing a shoe to a snowboard, in particular a quick-fit system comprising a heel release, also called a spoiler, and a heel-piece described in my Patent FRA 2,760,373. Existing systems have a relatively high number of additional parts compared with standard fixing systems with locking catches, springs acting on the latter and cams unlocking the assembly and, on the other hand, located at the bottom of the fixing systems, they are difficult to reach.

A purpose of the present invention is to simplify this by also equipping the heel release with functions of locking catches and of cams unlocking the system.

The fixing system comprises a base with a transversal section in a "U" shape equipped with a sole fixed flat on the snowboard, two wings extending up the sides of the sole, a heel release, a vertical part holding the rear of the shoe, placed transversally at the rear of the base, dividing in its lower part into two branches each interlocked to a wing of the base by means of a pin, each branch extending on the other side of the pin, descending towards the base. A lower part of the branches of the heel release located under each pin is housed under pressure from springs above part of the shoe or a heel-piece linked to the latter, located on the sides of the shoe, on each side of the heel, which parts may for example be in the form of catches engaging in notches of matching shape, preventing the shoe from coming out of the fixing system. The spring, having an angular action, surrounds the pin, one end pressing on the base, the other end, in contact with the heel release, causes the part of the latter which is located beneath the pin to pivot towards the front of the fixing system. The unlocking of the shoe or its heel-piece is achieved by pushing the top of the heel release towards the front of the fixing system.

Stops on the base in contact with the shoe or the heel-piece prevent said shoe from slipping towards the front and the rear of the fixing system.

In order to avoid accidental pivoting of the heel release on impact, a mobile blade, linked by one of its ends to the heel release, forms a loop behind said heel release, the other end of this blade is free and passes through an opening made in the heel release through the latter, and comes into contact with the rear of the shoe. In the event of an impact at the rear of the fixing system, the blade therefore comes to rest against the shoe, not the heel release.

Another safety feature consists of dividing the heel release into two parts; the lower part which holds the shoe or its heel-piece and the upper part on which the shoe rests. This upper part has two oblong holes in its base, substantially vertical, through which two pins pass which connect it to the lower part, offering partial freedom in rotation and in vertical translation of the upper part with respect to the lower part. The base of the upper part also comprises at least one element located beneath an element in a shape which matches the lower part, at a distance substantially equal to that covered by the pins in the oblong holes, which elements press and fit together when the upper part is lifted by the user, only then joining the two parts of the heel release in rotation. A return spring linking the two parts helps the upper part to return to the normal position of use when released. To open the fixing system, two movements are therefore necessary: the top of the heel release must be raised and pushed forward.

According to another embodiment, the lower part of the heel release, in the shape of a bow, holding the heel-piece, has on its rear an element, a handle, which is easy to hold and which, by pulling upwards, allows the rotation of the lower part and therefore the releasing of the heel-piece.

The front part of the shoe intended for this fixing system has on the sides of its sole two flat parts which slide into two housings of matching shape which pivot about pins connecting them to the front of the wings of the base.

Figures 1 and 2 show a longitudinal section of a fixing system and its shoe holding system according to the invention. Figures 3, 4 and 5 represent sections of a heel release in two parts.

5 With reference to these figures, the fixing system is constituted by a base (1) comprising a sole (11) fixed flat on the snowboard and two wings (12) extending up the sides of this sole (11), a heel release (2) placed transversally at the rear of the base (1), dividing in its lower part into two  
10 branches (21) each interlocked to a wing (12) by means of a pin (3). The lower part of these branches (21) is housed in a notch of a shape matching the latter cut into the extensions (41) of a heel-piece linked to the shoe (4) located on the sides of the latter, on either side of its heel. A spring (5) having an angular action surrounds the pin (3), one of its ends fits into a groove located on the top of the wing (12) of the base (1), the other end in a groove located on the heel release (2) above the pin (3) causes the heel release (2) to pivot about the latter.

15 Two stops (6) formed by additional thicknesses of the wing (12) located in front of and behind the extension (41) prevent the shoe from sliding in its fixing system.

20 A flexible blade (22) is fixed on top of the heel release (2) by one of its ends; the other, passing through an opening (23) in the heel release (2) comes to rest against the back of the shoe (4).

25 According to other variations, the heel release (2) is divided into an upper part (24) and a lower part (25). The upper part (24) is divided at its base into two branches in the form of  
30 hooks (26) with two oblong holes (27) through which the pins (3) pass connecting the upper parts (24), lower parts (25) and the wings (12) of the base (1). The lower part (25) has two flat parts (29) in shapes matching those of the hooks (26) and located above the latter.

35 - A handle (251) is fixed behind the lower part (25).  
- Two flat parts (42), located on either side of the shoe (4) at the front, moulded with the sole, slipping under angles (7) linked by pins (71) to the wings (12) (Fig 6 and 7).

CLAIMS

1. Device for fixing a shoe to a snowboard in particular, which fixing system is constituted by a base (1) comprising a sole (11) fixed flat on the snowboard and two wings (12) extending up the sides of the latter, a heel release (2) placed transversally at the rear of the base (1), being divided in its lower part into two branches (21) each interlocked to a wing of the base (1) by means of a pin (3), a heel-piece (41) characterized in that a lower part of the branches (21) of the heel release (2) located under each pin (3) is housed under the pressure of a spring (5) above one part of the shoe (4), a heel-piece (41) connected to the latter, part located on the sides of the shoe, on either side of the heel.

2. Device according to claim 1 characterized in that the angular action spring (5) surrounds the pin (3), the other end in contact with the heel release (2) causes the part of the latter located beneath the pin (3) to pivot towards the front of the fixing system.

3. Device according to claims 1 and 2, characterized in that a mobile blade (22), linked by one of its ends to the heel release (2), forms a loop behind said heel release (2), the other end of this blade (22) is free and passes through an opening made in the heel release (2) through the latter and comes into contact with the rear of the shoe (4).

4. Device according to claims 1 and 2 characterized in that the heel release (2) is divided into an upper part (24) having at its base two substantially vertical oblong holes (27), through which two pins (3) pass, which connect it to a lower part (25); the base of the upper part (24) also comprises at least one element (26) located under an element of matching shape (29) to the lower part (25)



at a distance substantially equal to that covered by the pins (3) in the oblong holes (27), which elements press and fit together when the upper part (24) of the heel release (2) is lifted.

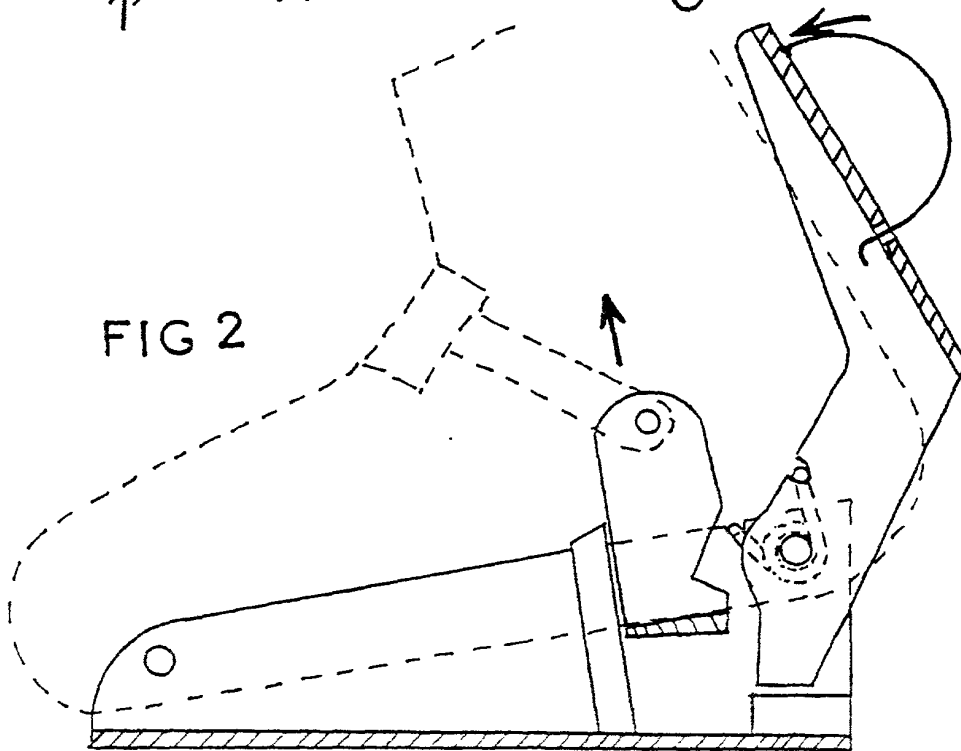
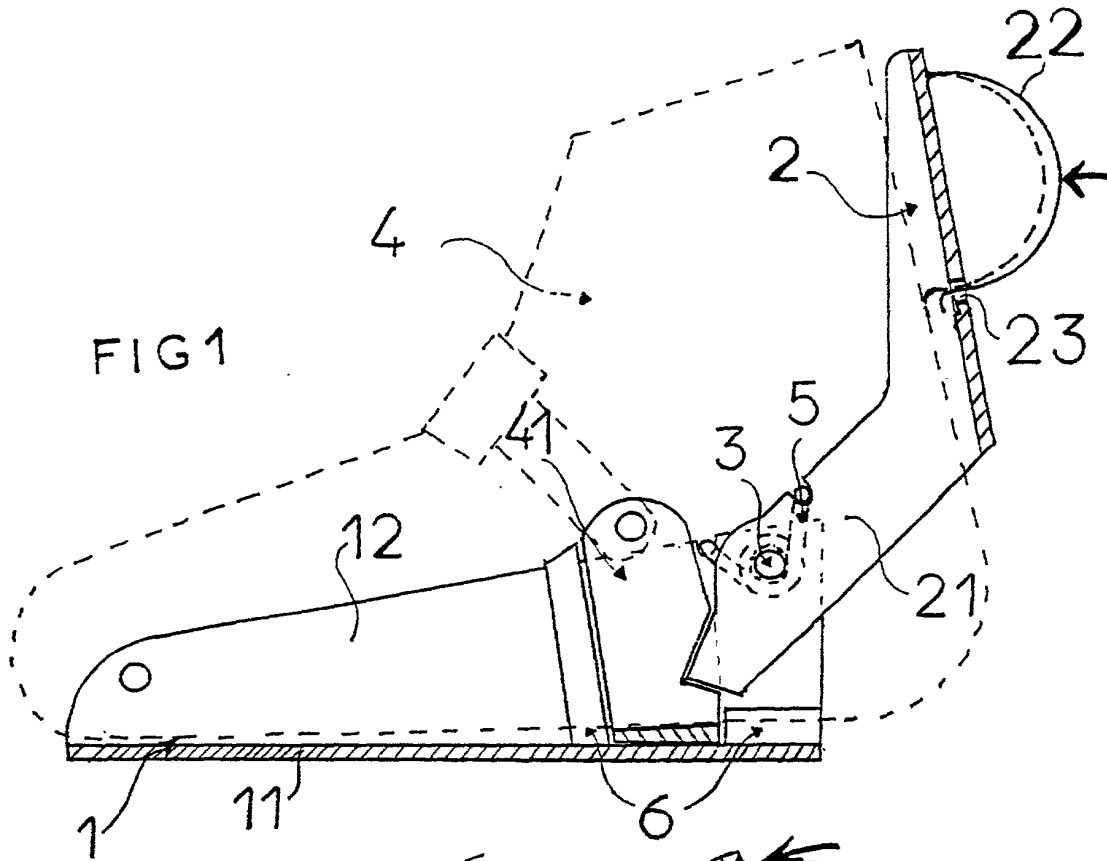
5

5. Device according to claim 4 characterized in that a return spring links the two parts (24) and (25) of the heel release (2).

10 6. Device according to claims 1 and 2 characterized in that the upper part (25) of the heel release (2) holding the heel-piece (41) has on its rear an element, a handle (251) which is easy to hold.

15 7. Device according to claims 1 and 2 characterized in that the front part of a shoe (4) intended for this fixing system has on the sides of its sole two flat parts (42) sliding into two housings (7) of matching shape located on the front of the wings (12) of the base (1).

20 8. Device according to claims 1 and 7 characterized in that the housings (7) pivot about pins (71) connecting them to the wings (12) of the base (1).



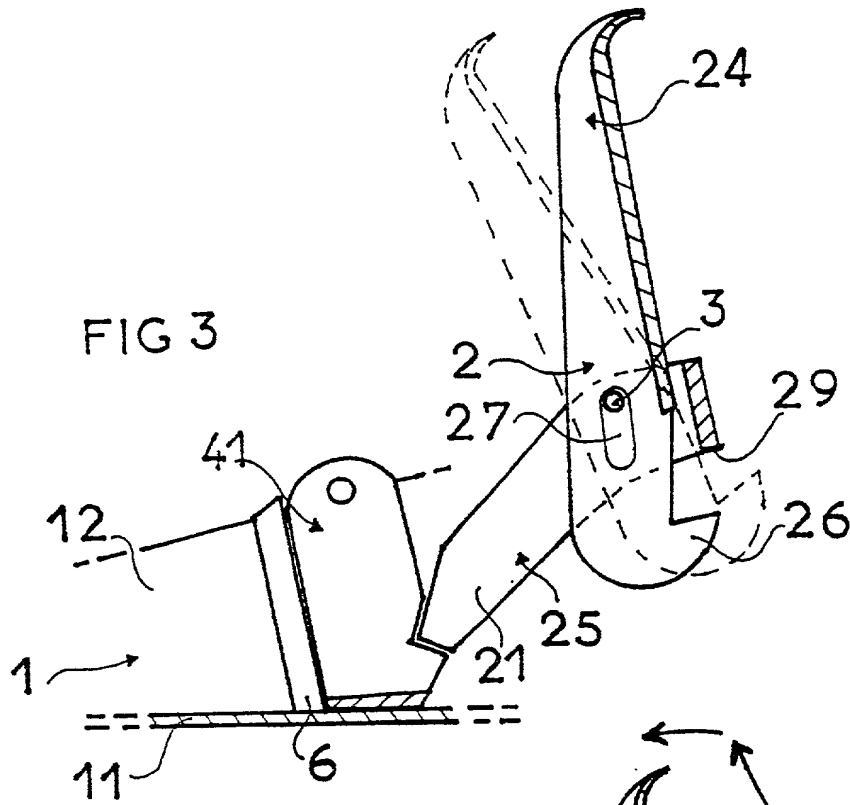


FIG 4

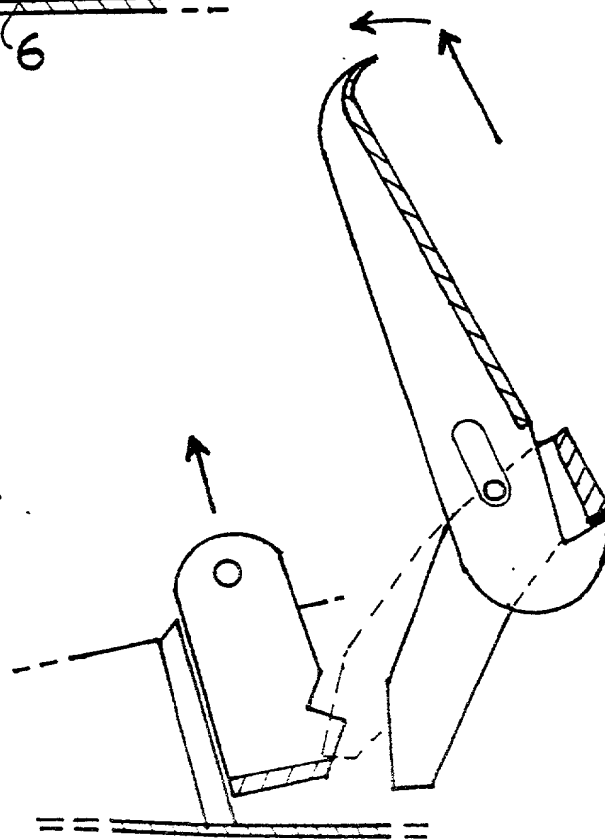


FIG 5

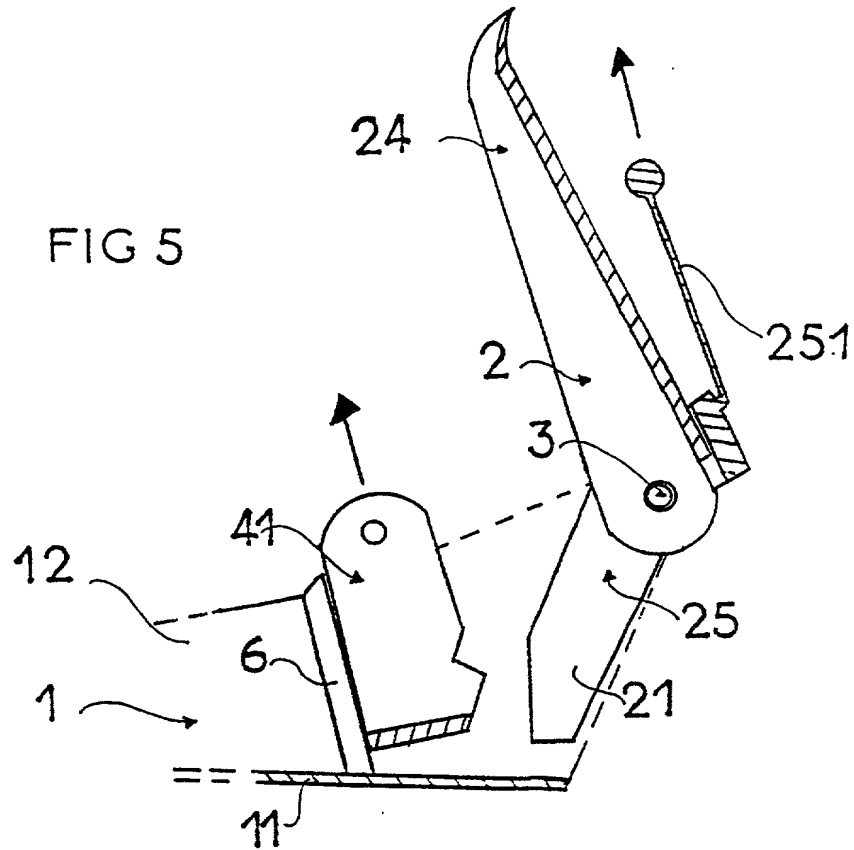


FIG 6

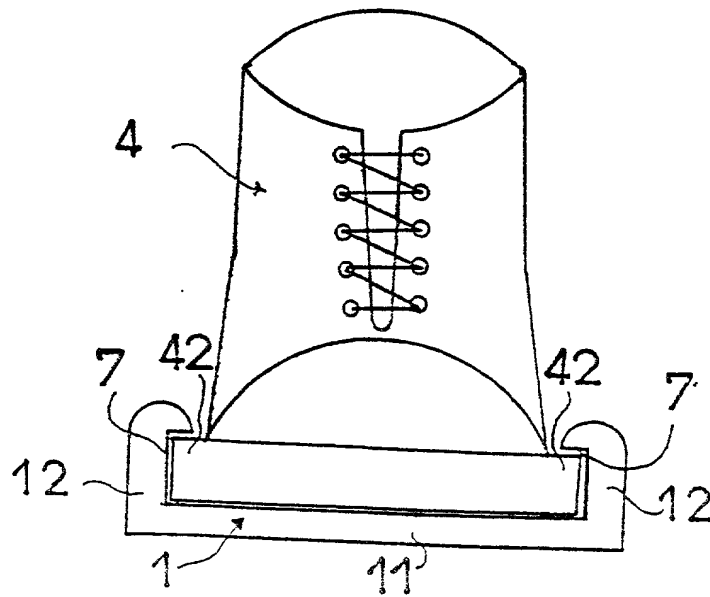
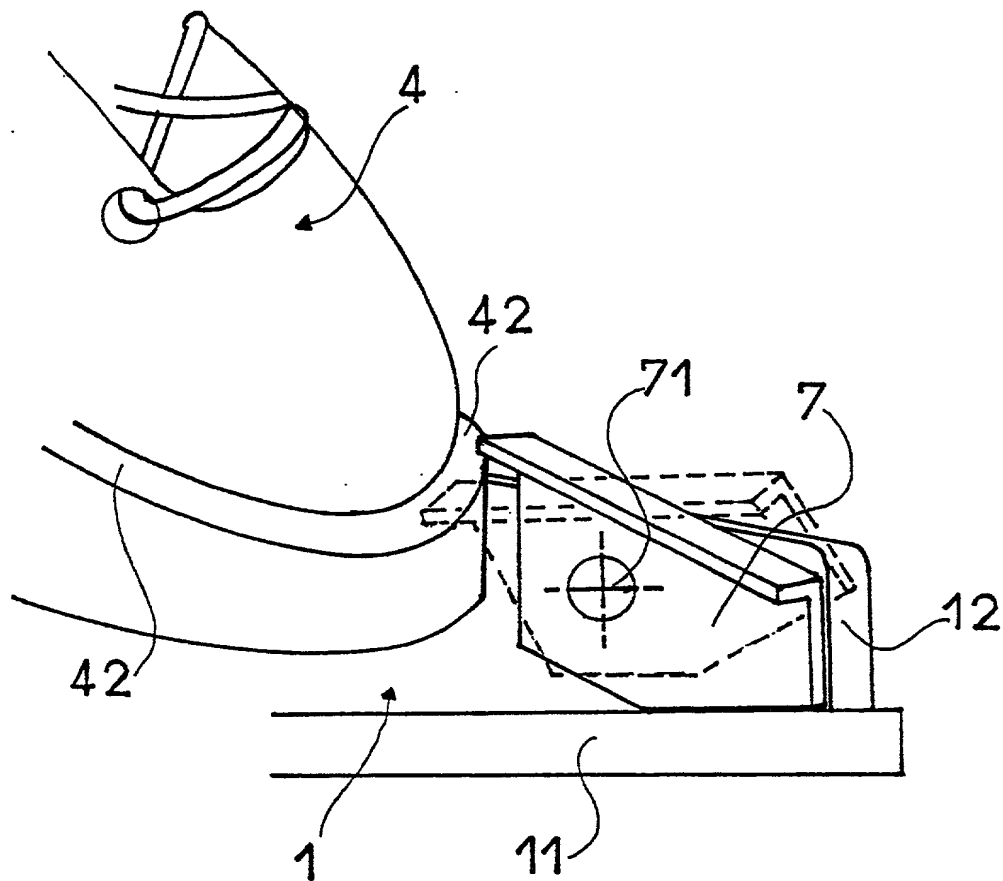


FIG 7



DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare:

That my residence, post office address and citizenship are as stated below next to my name:

That I verily believe I am the original, first and sole inventor of the subject matter which is claimed and for which a utility patent is sought on the invention entitled

**Snowboard shoe fixing system**

the specification of which  
was described and claimed in International application

**No. PCT/FR00/00380 filed on 16<sup>th</sup> February 2000  
and amended on 10<sup>th</sup> February 2001**

That I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

That I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

That I hereby claim foreign priority benefits under Title 35, United States Code, §119 and §172 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's on this invention having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)	Priority Claimed
<u>9902144</u> (Number)	<u>FRANCE</u> (Country)
	<u>19/02/1999</u> (Day/Month/Year)
	[ X ] [ ] Yes No

That I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the PCT international filing date of this application:

**United States Application(s)**

(Appl. Ser. No.)	(Filing Date)	(Status)
		(patented, pending, abandoned)

That all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

I hereby appoint the following attorneys, with full power of substitution and revocation to prosecute this application and to transact all business in the United States Patent and Trademark Office connected therewith, and request that all correspondence and telephone calls in respect to this application be directed to YOUNG & THOMPSON, Second Floor, 745 South 23<sup>rd</sup> Street, ARLINGTON, Virginia 22202, Telephone No. (703) 521-2297:

<u>Attorney</u>	<u>Regulation No.</u>
Robert J. PATCH	<u>17,355</u>
Andrew J. PATCH	<u>32,925</u>
Robert F. HARGEST	<u>25,590</u>
Benoît CASTEL	<u>35,041</u>
Eric JENSEN	<u>37,855</u>
Thomas W. PERKINS	<u>33,027</u>

Full name of sole or one joint inventor:

Frédéric DAT

Inventor's signature:



Date:

August 6, 2001

Residence and Post Office Address:

Chemin du Romarin

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France

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Citizenship:

FRENCH